

Attorney Docket No. AGLE0061

U.S. Appl. Serial No 10/699,543

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LISTING OF CLAIMS

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Currently Amended) A method for speech control of interactive applications, comprising the steps of:
  - providing at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;
  - providing a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:
    - a set of items, wherein each item comprises a word or phrase that can be spoken;
    - an associated set of attributes that provide more information about said item;
    - an associated set of attributes that provide more information about said grammar as a whole; and
    - optionally, a name of a grammar that must be imported to complete an utterance; and
  - providing a chained command attribute which indicates that an utterance in an item is a part of a chained command;
  - wherein speech commands are chained together to provide one-step access to information or application functionality.
6. (Original) The method of Claim 5, wherein at least one grammar comprises a command grammar for utterances that are used to control said application.

Attorney Docket No. AGLE0061

U.S. Appl. Serial No 10/699,543

7. (Original) The method of Claim 5, wherein at least one grammar comprises an information-type specific grammar comprising multiple alternatives for a single piece of information.

8. (Original) The method of Claim 7, wherein said information-type specific grammar is linked to another grammar via a unique utterance (keyword) that distinguishes an information type from any other information type.

9. (Original) The method of Claim 8, wherein said information-type specific grammar comprises an attribute that specifies a keyword; and wherein items in said information-type specific grammar comprise an attribute that identifies said item's information type.

10. (Canceled)

11. (Original) A method for speech control of interactive applications, comprising the steps of:

- providing a recognizer;
- providing a command processor;
- providing a context manager;
- providing a data source;
- said context manager communicating with said recognizer to activate appropriate grammars for a current context;
- said user speaking a command;
- said recognizer returning said spoken command and all associated attributes to said command processor;
- said command processor accessing said data source, as necessary, to carry out said command;
- said command processor updating a current context; and
- outputting results of said command.

12. (Original) A method for linking grammars into a hierarchy, comprising the steps of:

- defining an utterance that links two grammars in two parts;

Attorney Docket No. AGLE0061

U.S. Appl. Serial No 10/699,543

wherein a first part is a keyword, for information-type specific grammars, or a command for command grammars; and

wherein contents of said grammar-to-be-linked are imported to include all alternatives for a second part of said utterance.

13. (Currently Amended) The method of Claim 12, wherein said grammars link information-type specific information either explicitly or implicitly.

14. (Original) The method of Claim 13, wherein an application predetermines a navigation path and link in all appropriate grammars.

15. (Original) The method of Claim 13, wherein an application relies on type attributes returned to determine which options to make available to a user next.

16. (Currently Amended) An apparatus for speech control of interactive applications, comprising:

at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;

a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:

a set of items, wherein each item comprises a word or phrase that can be spoken;

an associated set of attributes that provide more information about said item;

an associated set of attributes that provide more information about said grammar as a whole; and

optionally, a name of a grammar that must be imported to complete an utterance; and

a chained command attribute which indicates that an utterance in an item is a part of a chained command;

wherein speech commands are chained together to provide one-step access to information or application functionality.

Attorney Docket No. AGLE0061

U.S. Appl. Serial No 10/699,543

17. (Original) The apparatus of Claim 16, wherein at least one grammar comprises a command grammar for utterances that are used to control said application.
18. (Original) The apparatus of Claim 16, wherein at least one grammar comprises an information-type specific grammar comprising multiple alternatives for a single piece of information.
19. (Original) The apparatus of Claim 18, wherein said information-type specific grammar is linked to another grammar via a unique utterance (keyword) that distinguishes an information type from any other information type.
20. (Original) The apparatus of Claim 19, wherein said information-type specific grammar comprises an attribute that specifies a keyword; and wherein items in said information-type specific grammar comprise an attribute that identifies said item's information type.
21. (Canceled)
22. (Currently Amended) ~~The apparatus of Claim 16, further comprising:~~ An apparatus for speech control of interactive applications, comprising:  
at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;  
a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:  
a set of items, wherein each item comprises a word or phrase that can be spoken;  
an associated set of attributes that provide more information about said item;  
an associated set of attributes that provide more information about said grammar as a whole;  
a name of a grammar that must be imported to complete an utterance; and  
means for processing a "more like this" command for using a currently selected item type to decide where to look for information that a user wants.

Attorney Docket No. AGLE0061

U.S. Appl. Serial No 10/699,543

23. (Original) An apparatus for speech control of interactive applications, comprising:

- a data source;
- a context manager, said context manager communicating with a recognizer to activate appropriate grammars for a current context;
- a recognizer, said recognizer returning a spoken command and all associated attributes to a command processor;
- a command processor, said command processor accessing said data source, as necessary, to carry out said spoken command, said command processor updating a current context and outputting results of said command.

24. (Original) The apparatus of Claim 23, wherein said spoken command effects any of:

- a targeted search;
- an exploratory search; and
- dynamic application generation.

25. (Original) An apparatus for linking grammars into a hierarchy, comprising:  
at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;

a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:

a set of items, wherein each item comprises a word or phrase that can be spoken;

an associated set of attributes that provide more information about said item;

an associated set of attributes that provide more information about said grammar as a whole; and

wherein an utterance links two grammars in two parts:

wherein a first part is a keyword, for information-type specific grammars, or a command for command grammars; and

wherein contents of said grammar-to-be-linked are imported to include all alternatives for a second part of said utterance.

Attorney Docket No. AGLE0061

U.S. Appl. Serial No 10/699,543

26. (Original) The apparatus of Claim 25, wherein said grammars link information-type specific information either explicitly or implicitly.

27. (Original) The apparatus of Claim 25, wherein an application predetermines a navigation path and link in all appropriate grammars.

28. (Original) The apparatus of Claim 25, wherein an application relies on type attributes returned to determine which options to make available to a user next.

29. (Original) The apparatus of Claim 25, further comprising:  
means for processing a "more like this" command for using a currently selected item type to decide where to look for information that a user wants.

30. (Original) An apparatus for dynamically constructing a user interface for a speech-controlled application, comprising:

a plurality of grammars comprising a structure of speech commands for said application;

said grammars further comprising means for indicating when commands are chained;

means for parsing said grammars to obtain said structure; and

means for using said parsed structure to auto-generate at least some of said user interface for said application.